

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF THE CLAIMS:

1-16. (Canceled).

17. (Currently Amended) A method for controlling vehicle dynamics in a motor vehicle, comprising:

recording, by at least one sensor, at least one measured value;

generating, by at least one image sensor system, image information from surroundings of a motor-vehicle to control the vehicle dynamics, the at least one image sensor system including at least two image sensors to record a same scene for the image information;

determining at least one fixed image point from the generated image information;

determining image coordinates of at least one fixed image point in at least two images of one image sequence;

determining the at least one measured value from the determined image coordinates,
the measured value being used for vehicle dynamics control; and

controlling, by at least one actuator, vehicle dynamics as a function of the at least one measured value and the image information.

18. (Previously Presented) The method as recited in claim 17, wherein the image sensor system includes at least one stereo camera.

19. (Previously Presented) The method as recited in claim 17, wherein at least one measured value is determined from the generated image information, the measured value being used for vehicle dynamics control.

20. (Canceled)

21. (Currently Amended) The method as recited in claim 17 [[20]], wherein the at least two images of one image sequence are successive.

22. (Previously Presented) The method as recited in claim 17, wherein, as a measured value, at least one of: i) a rotational vector of the motor vehicle and ii) at least one motion vector of the motor vehicle, are determined from the generated image information.

23. (Previously Presented) The method as recited in claim 17, wherein, as a measured value, at least one of a yaw rate, a yaw angle, and a lateral acceleration of the motor vehicle, are determined from the generated image information.

24. (Currently Amended) A method for determining a motion of a motor vehicle, comprising:

generating image information from at least one image sensor system, the image sensor system including at least two image sensors which record a same scene of surroundings of a motor vehicle, the image sensor system being at least one stereo camera; and

determining at least one of three-dimensional rotational motion of the motor vehicle, and three-dimensional translational motion of the motor vehicle, as a function of the image information, wherein a viewing direction of a first one of the at least two image sensors is oriented towards a direction of travel and a viewing direction of a second one of the at least two image sensors is oriented towards a direction opposite to the direction of travel.

25. (Canceled)

26. (Canceled)

27. (Currently Amended) A device for vehicle dynamics control in a motor vehicle, comprising:

at least one sensor for recording at least one measured value;

at least one image sensor system including at least two image sensors, the at least two image sensors configured to record a same scene, the image sensor system generating image information from surroundings of a motor vehicle of the same scene; and

at least one actuator which is driven by a processing unit/control unit as a function of the at least one measured value for vehicle dynamics control and the image information,

wherein the processing unit/control unit includes an arrangement configured to determine fixed image points from the generated image information, an arrangement configured to determine image coordinates of the at least one fixed image point in at least two images of one image sequence, and an arrangement to determine the measured value from the image coordinates, the measured value being used for vehicle dynamics control.

28. (Previously Presented) The device as recited in claim 27, wherein the at least one image sensor system includes at least one stereo camera.

29. (Previously Presented) The device as recited in claim 27, wherein the processing unit/control unit includes an arrangement configured to determine at least one measured value from the generated image information, the measured value being used for vehicle dynamics control.

30. (Canceled)

31. (Currently Amended) The device as recited in claim 27 [[30]], wherein the at least two images are successive.

32. (Previously Presented) The device as recited in one claim 27, wherein the processing unit/control unit includes an arrangement configured to determine at least one of i) a rotational vector of the motor vehicle, and ii) at least one motion vector of the motor vehicle, from the generated image information.

33. (Previously Presented) The device as recited in claim 27, wherein the processing unit/control unit includes an arrangement configured to determine at least one of: i) a yaw rate, ii) a yaw angle, and iii) a lateral acceleration of the motor vehicle, from the generated image information.

34. (Currently Amended) A processing unit/control unit for controlling vehicle dynamics in a motor vehicle, comprising:

an arrangement configured to process at least one measured value, which is recorded by at least one sensor, the at least one measured value being used for vehicle dynamics control;

an arrangement configured to process image information from at least one image sensor system, the image sensor system including at least two image sensors which record a same scene for the image information, the at least one image sensor system including at least one stereo camera, wherein the processing of the image information includes determining sampling vectors drawn from a zero coordinate point of each of the at least two image sensors to a fixed image point in each image of a sequence of images sensed by the image sensor system; and

an arrangement configured to control at least one actuator for vehicle dynamics control based on the measured value and the image information.

35. (Currently Amended) The processing unit/control unit as recited in claim 34, further comprising:

an arrangement configured to determine at least one rotational vector of the motor vehicle, as a function of a variation in component values of corresponding sampling vectors across the sequence of images from the generated image information, the at least one rotational vector being [[beam]], at least one of a yaw rate and a yaw angle.

36. (Currently Amended) The processing unit/control unit as recited in claim 34, further comprising:

an arrangement configured to determine at least one motion vector of the motor vehicle as a function of a variation in component values of corresponding sampling vectors across the sequence of images from the generated image information, the at least one motion vector being a lateral acceleration.

37. (Currently Amended) A storage medium storing a computer program, the computer program, when executed by a computer, causing the computer to perform the steps of:

processing at least one measured value, which is provided by at least one sensor, the measured value being used for vehicle dynamics control;

processing image information from at least one image sensor system, the image sensor system including at least two image sensors which record a same scene for the image information;

determining at least one fixed image point from the generated image information;

determining image coordinates of at least one fixed image point in at least two images of one image sequence;

determining the at least one measured value from the determined image coordinates;

and

controlling at least one actuator for vehicle dynamics control based on the at least one measured value and the image information.

38. (Currently Amended) A sensor unit for a motor vehicle, comprising:

at least two image sensors configured to record a same scene of surroundings of a vehicle;

an arrangement configured to generate image information regarding the surroundings of the vehicle based on the image information from the at least two image sensors, wherein the generating of the image information includes:

determining a fixed image point in each image of a sequence of images sensed by the at least two image sensors,

determining a sampling vector drawn from a zero coordinate point of each of the at least two image sensors to each of the fixed image points, and

determining x, y and z component values of each sampling vector; and

an arrangement configured to determine at least one of a rotational vector and a motion vector as a function of a variation in the sampling vector component values from one image in the sequence of images to a subsequent image in the sequence of images based on the generated image information.